

513, 884

PCT

20 DEC 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number
WO 2004/001028 A1

(51) International Patent Classification⁷:

C12N 9/10

(21) International Application Number:

PCT/GB2003/002645

(22) International Filing Date: 17 June 2003 (17.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0214406.1 21 June 2002 (21.06.2002) GB

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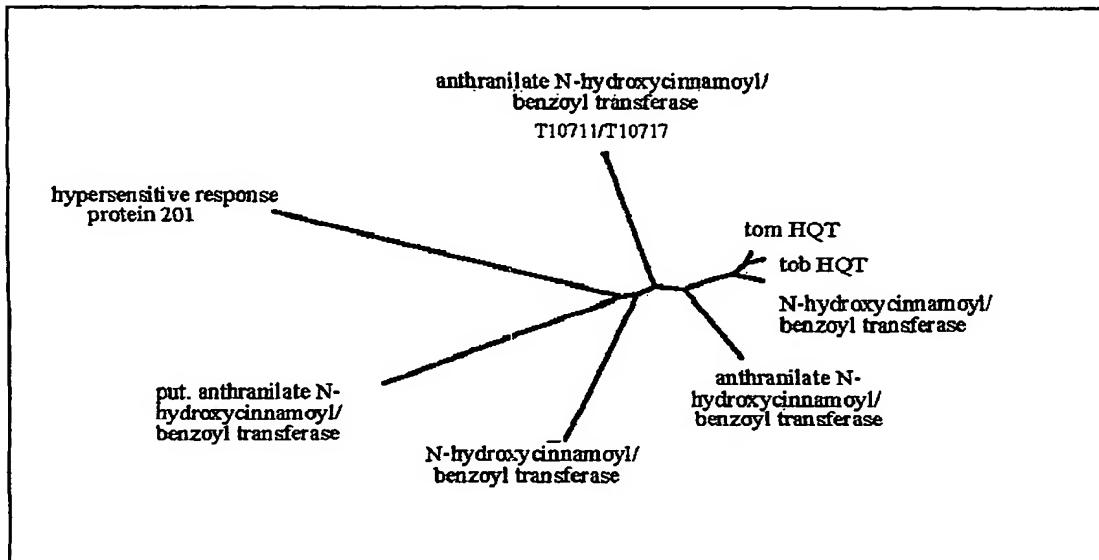
(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: PLANT-DERIVED TRANSFERASE GENES



WO 2004/001028 A1

(57) Abstract: The invention discloses methods for controlling chlorogenic acid synthesis by manipulation of hydroxycinnamoyl-CoA quinate hydroxycinnamoyl transferase (HQT) genes. Isolated nucleic acids encoding HQT and methods for their use are provided. Preferred embodiments are the nucleotide sequences which encode the polypeptide sequences of Fig 3 (sequences of Fig 7). Also provided are variant sequences (e.g. alleles and orthologues) and complementary sequences, plus vectors, host cells and plants. Methods of the invention include the use of nucleic acids to express or down-regulate HQT in plant cells and plants. The methods may be used to alter one or more characteristics in a plant e.g. texture, flavour and antioxidant properties.



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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 03/02645A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N9/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EMBL, BIOSIS, SEQUENCE SEARCH, MEDLINE, EMBASE, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL 'Online! EBI; 27 November 1999 (1999-11-27) KIKUCHI Y. ET AL.: "Ipomoea batatas hcbt mRNA for N-hydroxycinnamoyl / benzoyltransferase, complete cds." Database accession no. AB035183 XP002256044 cited in the application see sequence ---	1-35
X	DATABASE SWISSPROT 'Online! 1 May 2000 (2000-05-01) "Ipomoea batatas N-hydroxycinnamoyl/benzoyltransferase" Database accession no. Q9SST8 XP002256045 cited in the application see sequence ---	1-35
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Date of the actual completion of the international search

Date of mailing of the international search report

29 September 2003

13/11/2003

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INTERNATIONAL SEARCH REPORT

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Application No

PCT/GB 03/02645

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LOTFY SAMIA ET AL: "Hydroxycinnamoyl-CoA: Transferases in higher plants. II. Characterization in Cichorium endivia and Raphanus sativus and comparison with other plants." PLANT PHYSIOLOGY AND BIOCHEMISTRY (MONTROUGE), vol. 32, no. 3, 1994, pages 355-363, XP009018188 ISSN: 0981-9428 cited in the application page 356, column 2, paragraph 2 -page 359, column 2, paragraph 1 ---	1-35
X	RHODES M J C ET AL: "PURIFICATION AND PROPERTIES OF HYDROXY CINNAMOYL COENZYME A QUINATE HYDROXY CINNAMOYL TRANSFERASE FROM POTATOES" PHYTOCHEMISTRY (OXFORD), vol. 18, no. 7, 1979, pages 1125-1130, XP009018193 ISSN: 0031-9422 cited in the application the whole document ---	1-35
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